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Gravitational radiation and the removal of a degeneracy with respect to hidden parameters in relativistic hydrodynamics

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Abstract

We consider the evolution of a viscous heat-conducting fluid, initially found in a state of local thermodynamic equilibrium, in the field of a gravitational wave. It is shown that in the process of action on the hydrodynamic system the field of the gravitational wave imposes an anisotropy and inhomogeneity characteristic of it, removing the degeneracy with respect to the transport coefficients. © 1994 Plenum Publishing Corporation.

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